



STATE OF MICHIGAN

DEPARTMENT OF COMMUNITY HEALTH
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

JANET OLSZEWSKI
DIRECTOR

December 12, 2003

Subject: Influenza-Associated Deaths or Encephalopathy Children < 18 years of age

Dear Colleagues:

The Centers for Disease Control and Prevention (CDC) has asked that we collect information on any patient under the age of 18 years with death or acute encephalopathy related to influenza.

Since the mid-1900's, several hundred cases of acute encephalopathy have been reported in children with influenza in Japan. Reports of influenza-associated encephalopathy have been uncommon in the United States, although surveillance and investigation efforts in Michigan in the last flu season linked 4 deaths in previous healthy children to influenza. (MMWR September 5, 2003/Vol.52/No.35)

In order to further investigate encephalopathy or death associated with influenza in children, we ask that you please report the following:

A) In patients less than 18 years of age with laboratory-confirmed* influenza infection:

1. Death

OR

2. Acute encephalopathy (altered mental status or personality change in patient lasting >24 hours and occurring within 5 days of the onset of an acute febrile illness)

B) In patients less than 18 years of age:

1. Any unexplained death with evidence of an infectious process

Please telephone information to your local or state health department.

Contact for MDCH: Susan Spieldenner, RN (517) 335-8165 After regular hours: (517) 335-9030

Information to include:

- Demographic information including name, residence, primary physician
- Clinical summary with history of illness
- Laboratory results, including documentation of influenza virus infection
- Autopsy report if available

Thank you for your assistance in this active surveillance effort.

Sincerely,

Mary Grace Stobierski, DVM, MPH
Manager, Infectious Disease Epidemiology Section

Notes:* Laboratory-confirmed influenza = positive influenza rapid antigen test OR positive direct or indirect fluorescence assay (DFA/IFA) OR viral culture positive for influenza



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Influenza-Associated Deaths or Encephalopathy Children < 18 years of age

Specimen Collection Guidelines for the Diagnosis of Influenza (Revised 12/12/03)

Living Patients

Optimal Specimen

- Nasopharyngeal swab coupled with oropharyngeal swab for viral culture collected as early as possible in the patient's illness.
- If any respiratory specimens (pleural fluid, bronchoalveolar lavage, etc.) or CSF are available (including swabs preserved in viral transport media), please forward for testing by PCR.
- Sputum is an acceptable specimen for some testing, but should not be the only respiratory specimen sent.

Deceased Patients

Optimal Specimen

- Nasopharyngeal swab, tracheal or bronchoalveolar swab for viral culture collected as soon as possible after patient's death
- If any respiratory specimens are available from upper airway, (pleural fluid, bronchoalveolar lavage, etc.), or CSF are available (including swabs preserved in viral transport media) please forward for testing by PCR

Alternate Specimens

- Respiratory tract tissue for viral culture (in viral transport media)
- Frozen respiratory tract tissue for viral culture

Additional Specimens

- Paraffin-embedded and/or formalin-fixed tissue from the upper airway (trachea, larynx, large bronchi/central lung) and lung.
- Paraffin-embedded and/or formalin-fixed tissue of the heart, brain/meninges and all major organs. Organs showing any histopathology are a priority.

All specimens should be directed to MDCH-Bureau of Laboratories at: 3350 North Martin Luther King Jr. Blvd, Lansing, MI 48909. Telephone (517) 335-8067

- All specimens should be kept at 2-8° C (for up to 48 hours) until received at MDCH. Specimens can be stored at -70 °C and transported on dry ice if transit time will be prolonged.
- Further specifics on the collection and transport of specimens can be obtained from the MDCH Laboratory Services Guide on line at www.Michigan.gov; search for "laboratory services".
- If viral culture specimens are routinely sent to a reference laboratory, we ask that specimens be split and a portion sent to MDCH for testing, so that typing as well as further characterization by CDC can be completed if cultures are positive.

MDCH will perform respiratory pathogen panel testing of non-tissue respiratory specimens for the agents listed below. All other testing will be forwarded to CDC.

(Legionella pneumophila, Legionella species, Chlamydia pneumoniae, Mycoplasma pneumoniae, Respiratory Syncytial Virus, Influenza A, Influenza B, Adenovirus, Human Metapneumo virus, Enterovirus (CSF only), Rhinovirus).